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10/576,472	04/20/2006	Tatsuo Matsuoka	289997US2PCT	7211

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EXAMINER
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ART UNIT	PAPER NUMBER
2837	

NOTIFICATION DATE	DELIVERY MODE
01/13/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2010*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14 and 17* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14 and 17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some *   c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
       application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   The Amendments and Applicant Arguments submitted on 11/17/10 have been

received and its contents have been carefully considered.

        Claims 15 and 16 have been cancelled.

        Claim 17 has been added.

        Claims 1-14 and 17 are pending for examination.

Response to Arguments

2.   Applicant's arguments filed 11/17/10 have been fully considered but they are not

persuasive.

        In response to applicant's arguments with respect to "none of the cited prior art

teaches the feature of Claims 1 and 7 that the low speed of the elevator car during

movement of the car from the floor writing start position during the initial setting

operation is equal to or lower than a permissible collision speed with a buffer that

receives the car in a lower portion within a hoistway" and "since the value of the *very*

low speed is not quantified or defined in Coste, there is no technical basis for

concluding that it must necessarily be lower than a permissible collision speed of a

buffer that receives the car in a lower portion within a hoistway", the examiner disagrees

with the arguments.

        According to Coste in Col 2 lines 25-64, the elevator car is running at "a *very low*

speed using a *very low rate of acceleration* throughout the entire hoistway". As well-

known in the art, a typical travel pattern of an elevator car (including initial setting and normal operation) comprises acceleration, constant velocity, and deceleration. Since Coste emphasizes that the elevator car is running at "a very low speed using a very low rate of acceleration throughout the entire hoistway" during initial installation, it implies that the elevator car is running at a speed lower than the speed of the car throughout the entire hoistway during normal operation. Since normal speed of the car during normal operation is being considered as "a permissible collision speed of a buffer" and Coste teaches that the car is running at a speed lower than the normal speed of the car during initial installation, Coste in combination with Kaneko discloses the claimed invention.

In response to applicant's argument with respect to "since neither Coste nor Mueller suggests operating the car at a low speed lower than a permissible collision speed of the buffer during movement of the car from the floor writing start position in the initial operation mode, there is no basis to conclude that this was known or would have been obvious in Kaneko et al.", the examiner disagrees with the argument.

As we have discussed above, Coste in Col 2 lines 25-64 teaches that the elevator car is running at a low speed lower than a permissible collision speed of the buffer (i.e. normal speed of the car during normal operation), it would have been obvious to one skilled in the art to have modified the teachings of Kaneko with the teachings of Coste and Mueller so as to achieve the claimed features with a reasonable expectation of success since all the claimed elements were known in the prior art, and the modification would have only yielded predictable results.

Claim Objections

3.   Claim 17 is objected to because of the following informalities: "the supervision

position" in line 7. It is suggested to amend the limitation to be "the supervision portion".

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
> or described as set forth in section 102 of this title, if the differences between the
> subject matter sought to be patented and the prior art are such that the subject
> matter as a whole would have been obvious at the time the invention was made
> to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was
> made.

5.   Claims 1-4, 6-10 and 12-14 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Kaneko et al. (US 2002/0175651 A1) in view of Angst (WO

03/004397) (all the rejections below are based on Angst et al. US 7,117,979 B2, the

equivalent translation of Angst WO 03/004397), Vialonga (US 6,357,553 B1) and Coste

et al. (US 5,747,755).

   In Re claims 1 and 7, Kaneko discloses an elevator apparatus and method

(Figure 2) comprising:

- an elevator control apparatus having an operation control portion (3) that

   controls a movement of a car (401), and an actual speed of the car, based

   on a current operation mode (normal operation) (Paragraph [0023]), and

- wherein when the supervising portion (7) performs an initial setting (initial position setting operation) to set a relationship between a signal from a supervision position sensor (6) and a position of the car in an initial operation mode (i.e. obtain position information between actual position of the car and the position of the car with respect to a fixed point) (Figure 8: 701; Paragraphs [0045, 0046]);

- the operation control portion causes the actual speed of the car to be a low speed (Paragraph [0046]: "speed that does not race the drive means", which means the "actual speed of the car" is lower than or equal to the rated speed of the car, and it is considered as "low speed" by the examiner) during movement of the car fro the floor writing start position (i.e. x0) during operation in the initial operation mode (i.e. initial position setting operation), and

- the operation control portion causes the actual speed of the car to be a high speed greater than the slow speed (since the car is moving slowly in initial setting, the speed of the car is faster in normal operation compared to the speed of the car in initial setting).

Kaneko fails to disclose the supervising portion detects abnormalities in the movement of the car, the operation control portion controls the movement of the car to a floor writing start position adjacent an end of the range of movement of the car, and a low speed lower than a permissible collision speed of a buffer that receives the car in a lower portion within a hoistway.

However, with reference to Figure 1A), Angst discloses a supervising portion (24) that detects abnormalities (overspeed) in the movement of the car (Col 4 lines 45-48). Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have modified the teachings of Kaneko with the teachings of Angst, since it is known in the art to utilize a monitoring device to detect the speed of an elevator so as to be able to apply braking force to the elevator in an overspeed condition.

Kaneko and Angst fail to disclose the operation control portion controls the movement of the car to a floor writing start position adjacent an end of the range of movement of the car, and a low speed lower than a permissible collision speed of a buffer that receives the car in a lower portion within a hoistway.

However, Vialonga discloses the operation control portion controls the movement of the car to a floor writing start position adjacent an end of the range of movement of the car (Col 2 lines 7-45: first mode: requesting the cab moving to any particular landing; and second mode: moving the cab up or down depending the needs).

Since Kaneko teaches the initial setting operation starts either at the top or bottom of an elevator shaft (fix point), it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have modified the teachings of Kaneko with the teachings of Vialonga so as to be able to move the elevator to any desire fix point for performing operation (e.g. inspection).

Kaneko, Angst and Vialonga in combination fail to disclose a low speed lower than a permissible collision speed of a buffer that receives the car in a lower portion within a hoistway.

However, Coste discloses the operation control portion causes the actual speed of the car to be a low speed (Col 2 lines 25-64: very low speed) lower than a permissible collision speed of a buffer that receives the car in a lower portion within a hoistway ("a low speed lower than a permissible collision speed of a buffer that receives the car in a lower portion" is being considered a speed lower than normal running speed of the elevator, and since Coste discloses the initial operation is running at a "very low speed", it implicitly disclose the "very low speed" is lower than the normal running speed of the elevator) during movement of the car from the floor writing start position during operation in the initial operation mode.

Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have modified the teachings of Kaneko, Angst and Vialonga with the teachings of Coste (i.e. moving elevator in a low speed during initial operation), since it is known in the art to run elevator at a low speed during initial operation so as to be able to "learn" the static "slip and stretch" phenomenon of the elevator (Col 2 lines 25-64).

In Re claims 2 and 8, with reference to Figures 6 and 9, Angst teaches the supervising portion (24.1 & 24.2) outputs a permission signal (when speed below the speed limit value graph) to the operation control portion regarding the actual speed of

the car to be controlled by the operation control portion (Col 4 lines 15-26 & Col 7 lines

34-46).

In Re claims 3 and 9, Angst discloses a plurality of operation modes of an

elevator (i.e. ramping operation, inspection, error mode, etc), and different speed limit

value graphs will be produced dependent on the operation mode (Col 2 line 66 to Col 3

line 14 & Col 5 line 47 to Col 6 line 9). Therefore, Angst inherently discloses the

operation control portion of the elevator can selectively change the current operation

mode between a plurality of operation modes.

In Re claims 4 and 10, with reference to Figures 8 and 9, Angst teaches the

supervising portion (24) comprises an emergency terminal speed-limiting device (24.2)

configured to forcibly decelerate and stop the car when the car approaches a vicinity of

a terminal landing at a speed higher (46-48) than a preset speed (29) (Col 7 line 28 to

Col 8 line 3).

In Re claims 6 and 12, with reference to Figure 9, Angst further discloses a

control position sensor (21) and a supervision position sensor (21) connected to the

supervising portion (24.2) for detecting a position of the car (8) within a hoistway (Col 8

lines 14-17). Also, as we have discussed above, Kaneko discloses the relationship

between the signal from the position sensor and the position of the car within the

hoistway is set in the initial setting performed by the supervision portion (i.e. relationship

between the actual position of the car and the position of the car with respect to a fixed

point).

In Re claims 13 and 14, Angst teaches speed limit value graphs (28) which are stored in the speed monitoring device (24), and the limit values are set to be higher than normal rated speed (27) of the car at each position in the travel way (Figure 3) so that the supervision portion is configured to detect the abnormalities based on the limit values with respect to the position of the car (e.g. overspeed condition). As we have discussed above, Kaneko teaches the relationship set between the supervision position sensor (6) and the position of the car (position with respect to a fix point) in the initial setting (initial position setting operation). When the elevator runs in normal operation, the elevator system determines the position of the car based upon the set relationship and thus determines the abnormalities of the car (e.g. overspeed condition).

Since Angst teaches the speed limit value graphs used to detect abnormalities of the elevator are based on the speed of the car and the car position, it would have been obvious to one having ordinary skill in the art to use data collected from the initial setting (disclosed by Kaneko) to set the speed limit (disclosed by Angst) for the elevator at each position of travel way during normal operation with reasonable expectation of success.

6.   Claims 5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneko et al. (US 2002/0175651 A1) in view of Angst (WO 03/004397) (all the rejections below are based on Angst et al. US 7,117,979 B2, the equivalent translation of Angst WO 03/004397), Vialonga (US 6,357,553 B1) and Coste et al. (US 5,747,755)

as applied to claims 1 and 7 above, and further in view of Mueller (US 2004/0079591 A1).

    In Re claims 5 and 11, Kaneko, Angst, Vialonga and Coste have been discussed above, but they fail to disclose the shortened buffer and the control portion causes the car to travel at a speed equal to or lower than a permissible collision speed of the shortened buffer.

    However, with reference to Figures 1 and 4, Mueller discloses the use of reduced nominal speed (RG) in the end area of the shaft would enable the installation of a shortened buffer (smaller shaft pit and shaft head) (Paragraph [0011]), and wherein the operation control portion (2) causes the car to travel at a speed equal to or lower than a permissible collision speed of the shortened buffer (with the use of the reduced nominal speed RG at each shaft end) in performing initial setting of the supervising portion (monitored by the safety device) (Paragraph [0073]).

Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have modified the teachings of Kaneko, Angst, Vialonga and Coste with the teachings of Mueller, since it is known in the art to utilize reduced speed limit at the shaft end so that smaller buffers will be needed (Paragraph [0011]).

7.   Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneko et al. (US 2002/0175651 A1) in view of Angst (WO 03/004397) (all the rejections below are based on Angst et al. US 7,117,979 B2, the equivalent translation of Angst WO 03/004397) and Vialonga (US 6,357,553 B1).

In Re claim 17, Kaneko discloses an elevator apparatus (Figure 2) comprising:

- an elevator control apparatus having an operation control portion (3) that
  controls a movement of a car (401), and an actual speed of the car, based
  on a current operation mode (normal operation) (Paragraph [0023]), and

- wherein the supervising portion (7) is arranged to set a speed supervising
  pattern independently of the operation control portion (i.e. initial position
  setting operation: obtain position information between actual position of
  the car and the position of the car with respect to a fixed point) (Figure 8:
  701; Paragraphs [0045, 0046]);

- in initial setting operation (i.e. initial position setting operation), the
  supervision portion (7) is arranged to perform position detection initial
  setting (Figure 8: 701; Paragraphs [0045, 0046]), and

- the operation control portion (3) is arranged to cause the car to travel at a
  lower speed than a speed at the time of normal operation during the
  position detection initial setting (Paragraph [0046]: "speed that does not
  race the drive means", which means the "actual speed of the car" is lower
  than or equal to the rated speed of the car, and it is considered as "low
  speed" by the examiner).

Kaneko fails to disclose the supervising portion detects abnormalities in the
movement of the car, the supervision portion is arranged to first perform speed
detection initial setting, and the operation control portion is arranged to be inoperable
during the speed detection initial setting.

However, with reference to Figure 1A), Angst discloses a supervising portion (24)

that detects abnormalities (overspeed) in the movement of the car (Col 4 lines 45-48).

Thus, it would have been obvious to one having ordinary skill in the art at the time of the

invention was made to have modified the teachings of Kaneko with the teachings of

Angst, since it is known in the art to utilize a monitoring device to detect the speed of an

elevator so as to be able to apply braking force to the elevator in an overspeed

condition.

Kaneko and Angst fail to disclose the supervision portion is arranged to first

perform speed detection initial setting, and the operation control portion is arranged to

be inoperable during the speed detection initial setting.

Since applicant fails to explicitly discloses the function of the "speed detection

initial setting" in the disclosure, based on the understanding of the examiner and the

principle of the broadest reasonable interpretation, the examiner interprets the "speed

detection initial setting" as being detecting whether the speed of the car is zero at the

floor writing start position, and as a result the operation control portion is arranged to be

inoperable since the car is not moving or on brake at the floor writing start position.

As such, Vialonga discloses the supervision portion is arranged to first perform

speed detection initial setting (i.e. stopping the elevator at a floor writing start position),

and the operation control portion is arranged to be inoperable during the speed

detection initial setting (i.e. the car is stopped at the floor writing start position) (Col 2

lines 7-45: first mode: requesting the cab moving to any particular landing). In addition,

since Vialonga teaches the elevator car is being moved to any particular landing before

activating the second mode, Vialonga inherently discloses that the supervision portion

detects the car is at full stop at the particular landing; thus Vialonga teaches the speed

detection initial setting.

Since Kaneko teaches the initial setting operation starts either at the top or

bottom of an elevator shaft (fix point), it would have been obvious to one having

ordinary skill in the art at the time of the invention was made to have modified the

teachings of Kaneko with the teachings of Vialonga so as to be able to move the

elevator to any desire fix point for performing operation (e.g. inspection).

Conclusion

8.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kawing Chan whose telephone number is (571)270-3909. The examiner can normally be reached on Mon-Fri 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Benson can be reached on 571-272-2227. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. C./	/Walter Benson/
Examiner, Art Unit 2837	Supervisory Patent Examiner, Art Unit 2837